



INTERNATIONAL
HELLENIC
UNIVERSITY

Project Management in Multicultural Environment

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SCHOOL OF ECONOMICS, BUSINESS ADMINISTRATION & LEGAL STUDIES

A thesis submitted for the degree of

Master of Science (MSc) in Strategic Product Design

January 2019

Thessaloniki – Greece

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I hereby declare that the work submitted is mine and that where I have made use of another's work, I have attributed the source(s) according to the Regulations set in the Student's Handbook.

January 2019
Thessaloniki - Greece

Abstract

This dissertation was written as part of the MSc in Strategic Product Design at the International Hellenic University.

This study aims to investigate the impact of multiculturalism on virtual/semi-virtual project collaboration. The assessment of the main factors that influence multicultural project performance, the interpretation of the challenges that observed among the multicultural team members, the clarification of members' different work mentality concerning their cultural background and the examination of project outcome in multicultural environment are the objectives of this dissertation topic. In order to answer the aforementioned, a structured qualitative research, based on a questionnaire in combination with in-depth interviews, has been conducted. The sample group consists of four (4) Greek managers experienced in multicultural/cross-cultural virtual/semi-virtual project management, having key roles at their companies and organizations. Results of the survey analysis shows that multiculturalism may influence negatively team's performance and operation. Effective communication and individual trust are the main elements which are affected, while, in terms of impact on project outcome, project delay and extension of scheduled plan is the most common consequence.

Keywords: Project Management, Multiculturalism, Virtual Collaboration

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Wednesday, 30 of January 2019

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1. Introduction

1.1 Significance

Since the globalization phenomenon has increased rapidly, having economic, social and political impacts, the mixing of cultures has become a key characteristic at the organizations worldwide. New markets for products and services have been developed to reduce costs and increase profits. Many companies, in order to take advantage of globalization and expand their market share, have developed new organizational strategy and have started to build multicultural environment in the need of being competitive in the market (Ozguler, 2016). Foreign people from diverse national cultures, having different way of thinking, are working together for the same purpose on activities that exceed the national borders. In addition, Neeley (2015) notes that global projects and multicultural teams seem to be preferred as an organizational form for multinational companies to succeed in the globalized economy. At the same time, according to Konanahalli et al. (2014), a new era of internalization is entering in the project management industry, while Lee-Kelley and Sankey (2008) note that management of culture differences among the team members is a crucial key for the project success. The project management institute, (PMBOK, 2013), defines the project success as “completing the project within the constrains of scope, time, cost, quality, resources and risk”. Cheng et al. (2006), who investigate the project performance and success, agree that both are, highly, correlated with team’s integration regarding the project objectives. Earley and Mosakowski (2000) present the positive side of multicultural teams, noting that each member provides a different judgement through its diverse way of thinking and, in total, variety of skills are offered to whole project performance. The above mentioned identify the importance and vitality of multicultural team management, which is, in parallel, a challenge for human resources management (Ochieng and Price, 2010). The ineffective and not well organized management of project team may lead to potential failure.

Makilouko (2004) segments the project management teams into three categories. The first one consists of members from different cultural background, coming from ethnic minorities and working all together in the same area. The second one, which is called semi-virtual team, is characterized by people who are located and dispersed in different countries, but they are able to be met face to face, while the third one is this that members are working and

cooperating only through electronic services and they, never, meet each other. The last category is, also, called virtual project team (Ebrahim et al., 2009). This study is, mainly, focused on the second and third type of project teams, since they are more common at the globalized organizational environment. However, there is one more type of multicultural collaboration, at which two or more companies cooperate as joint ventures in order to develop a project in partnership (Ochieng and Price, 2010).

Huang 2016, at his scientific research regarding the challenges in global projects, states that an international project is quite different from the national one, since project managers have to handle teams that are characterized from cultural diversity. According to Cheng et al. (2016), different culture, history and political system are the key elements that may affect the collaboration among the team members. The foreign environment in combination with cross-cultural conditions may lead to project insecurity.

1.2 Aims & Objectives

The aim of this study is to gain an understanding and knowledge of managing a project which consists of members coming from different national cultures. The author aims to explore how a project is affected from their diversified cultural background and how the feature of multiculturalism has impact on project result.

More specifically, the following objectives have been identified of paramount importance in helping to achieve the aforementioned aim:

- Critical assessment of main factors that influence multicultural project performance and challenges that observed among the multicultural team members, who are located and dispersed in different countries or continents.
- Examination of project result in a global virtual team environment.
- Clarification of members' different way of thinking and work mentality concerning the place of origin and cultural background.

1.3 Research Gap

The current study has been chosen due to the limited, under some circumstances, literature review that has been detected regarding the multicultural project investigation. Since the

globalization phenomenon has started in the recent decades (Ozguler, 2016) and the project management field always shows progress and is developed rapidly, there is not plenty of scientific studies examining project multiculturalism. As it is, extensively, reported at the next section (Section 2), there are some past researches which analyze the operation and effectiveness of the global project teams. However, only few of them are focused on virtual/semi-virtual project teams at which members are not located in the same country. Moreover, only few researchers are dealing with the project result and impact that multiculturalism has on project scope, time and budget.

In addition, in the literature review is not existed any research that examines and investigates the topic receiving feedback from the Greek territory. Greece, as a member of the European Union and due to its strategic importance of location, connecting Europe, Asia and Africa, has attracted plenty of multinational companies and organizations from a wide variety of industries. However, there is not any past study based on Greek or foreign companies in the Greek territory that face the multicultural project challenge, or even project teams anywhere around the world that contains Greek members, having the Greek culture and using the Greek way of thinking.

Therefore, a lack of research in a specific part of project management field has been detected. This study, through the objectives that have been mentioned before, makes a modest effort to close this knowledge gap.

1.4 Methodology

In order to receive the appropriate feedback regarding the topic, some project managers with relative work experience have been used and taken into consideration. The study uses a structured questionnaire that includes questions about the operation and effectiveness of multicultural project teams, along with factors that may influence the project procedure and issues that may arise during this. Furthermore, the method of in-depth interviews has been added in the procedure, allowing the interviewer and the interviewees to explore more points and issues that, maybe, have not been involved in the questionnaire. Through this, the author tries to develop a productive bilateral discussion in order to clarify the objectives that have

been set. In addition, the author will refer to his own empirical project management experience in multicultural semi-virtual environment.

1.5 Stakeholders

The current research could be an important source of knowledge for any project manager that leads or is going to lead a project team with members from diversified cultural background. In addition, the fact that there is not any other relative study in the Greek territory, may be an advantage for companies and organizations in the wide area.

1.6 Structure

The thesis roadmap consists of seven sections. Section 1 is the introduction that has, just, been presented, while Section 2 is focused on the literature review and previous scientific researches regarding the topic. The study continues with the analysis of research methodology (Section 3), following the content analysis and findings at Section 4. Afterwards, thesis proceeds with the conclusion, trying to investigate a possible association between the findings and the literature review and, at the same time, provides recommendation for future research (Section 5). It closes with Section 6 and Section 7, which represent, correspondingly, the references and the appendix parts of the study.

2. Literature Review

For the purpose of this study, a structured literature review has been conducted. The first part of this section provides a brief report of previous scientific researches about project management in general as a global tool that, widely, used in our days, while the second one is focused, specifically, on project management in multicultural environment, bringing to the surface the existed knowledge about the topic and the objectives.

2.1 Project Management

As it has, already, been mentioned in Section 1, project management has gained popularity in all types of organizations and companies around the world across many industries. The increased number of projects and portfolios should be managed professionally by experienced project managers and associates who have the ability and the necessary skills to face any problem that may occur (Vlahov et al., 2016). Since the use of project management practices has increased due to the fast-changing working environment, many companies try to adopt management methodologies to deliver the project scope in a cost conscious and controlled way (Fisher, 2011). In this case, the overall companies' performance will be improved. According to Pant and Baroudi (2008), the project manager job is very demanding and complex, since the dealing with several issues at the same point of time is required. In addition, Crawford (2000) adds that the choice of suitable project manager is a key factor regarding the successful delivery of project, because he/she has to handle correctly and efficiently a large and diverse set of people. Wang et al. (2017), at their research about the role of project management in companies' growth, notice that attention should be focused not only on short-term project profits, but also on long-term impact of the result for the sustainable organization growth. In other words, the authors highlight the importance of project management at viability of an organization through the years in a highly competitive environment.

Radujkovic and Sjekavica (2017) make an effort to clarify the difference between project success and project management success. It is noted that a project can be successful, even though the project management is unsuccessful and vice versa. For example, although a project is over budget or/and behind schedule and cannot meet the deadline, it, maybe, has

achieved higher goals than the expected or/and has a positive long-term impact at the organization. However, it is, clearly, stated that there is a positive correlation between them and that successful project management can boost up project success. Nevertheless, it is very difficult to evaluate project management success accurately, since project management provides both tangible and intangible benefits (Thomas and Mullaly, 2008). In addition, Project Management Institute (2013) states that project manager is responsible not only for budget, schedule and quality management, but also for scope, human resources, communication, risk and procurement management, elements that determine him/her as the most responsible person for the project success.

Ozguler (2016), at his scientific paper regarding the increase of project success rate, provides a valuable, for this research, analysis of factors that affect the result of a project. The researcher agrees with the abovementioned element that the main manager of each project has the exclusive responsibility for the project success. The factors, stated by Ozguler (2016) as crucial, are mentioned below:

- *Project Management.* The application of knowledge, tools, skills and technics have as a result the increase of project success rate.
- *Business Alignment.* If the project follows the organizational strategy and its principles, the success rate will be improved.
- *Decision Making and Influencers.* Project manager should know the team members' way of thinking and decision making.
- *Human Resource Planning.* Through this, skills, that each member has, will be identified, roles and responsibilities will be apportioned, while relationship and staffing management will be reported.
- *Teamwork and Teambuilding.* An effective and productive project team should be developed. It can be cultivated through the selection of the right person for each, clearly, described role, creating trust between team members and rewarding them for overall project.
- *Stakeholder Management.* Stakeholders should be identified at early project stages and informed about project goals, objectives and risks. Good stakeholder engagement management may lead in project success.

- *Communication*. It should be planned and organized carefully and effectively in order to be avoided any misunderstanding at the entire project life cycle.
- *Interpersonal Skills*. Negotiation, coaching, motivation and cultural awareness are factors that affect project success.

Through the above-mentioned factors and their description, the severe and determinant role of project team members are identified. The selection of persons, their skills and background may have a crucial impact on project procedure and its result. Egan 2002 indicates the integrated team work as the primary key for successful project delivery.

2.2 Project Management in Multicultural Environment

At the beginning of Section 1 is, briefly, noted the popularity of multicultural team collaboration due to development of globalization and need of cost reduction (Konanahalli et al. 2014; Ozguler 2016). According to Kirkman et al. 2001, cultural and regional influences have a crucial impact on behavior and operation of a team. This part investigates and provides part of literature review regarding project management, when project team members come from diversified cultural backgrounds, they are not located at the same area or country and, therefore, they do not have daily face to face collaboration. The term “culture” is conceived as national culture and not as organizational or professional culture. It is focused on the primary factors, according to previous researches, that affect the performance of a multicultural virtual/semi-virtual project team, along with issues that may arise and impacts that they may have on project operation and result. In addition, this part provides some distinctive examples regarding the different way of thinking and working among national cultures from all over the world.

According to Ochieng and Price (2010), communication is one of the most important elements for a multicultural team which is separated geographically, characterizing it as a challenge for the project manager. They present communication as a social interaction among individuals at which suitable tools and regulations are applied for the improvement of data transaction, adding that there is not any espoused communication practice that can guarantee the successful project result. The two researchers conclude that effective communication strategy is the key factor for the fulfillment of project expectations, since through this, strong

working relationship is established and maintained. Powell et al. 2004 notice that virtual project teams rely on information technology (e.g., chats, emails, media conferencing) as the primary way of communication, while Pauleen 2004 adds that employees, often, interpret information according to their cultural values and biases, fact that may lead to misinterpretations and problems at the project. However, Emmitt and Gorse (2007) note that although the rapid development of global information systems and telecommunications, multicultural project teams, still, face many unresolved communication issues.

A major part of communication issues regards the insufficient language skills. Usually, project teams chose a language as the common one through which the information will be communicated among the members. Thus, spelling and grammatical errors along with other language violations in emails and chats have as a result the negative perception regarding trustworthiness and agreeableness (Vignovic and Thompson, 2010). Saidun 2016 tries to examine project management in North Africa and analyzes the influence of interculturalism in a project with members from Algeria and Morocco. The researcher notes that the use of a common language, since both speak French and Arabic, during conferences and meetings are a positive factor for the project success. Cheng et al. 2016 state that language is a key factor at the development of trust among multicultural team members, providing as an example the poor Chinese level at foreign languages speaking. Luckmann and Farber 2016 provide an example of a complaint letter which was sent to Australians and Singaporeans to present the different way that each cultural uses the language. According to this, Australian found the letter too soft, while for the Singaporean it was too rude. Furthermore, the lack of face to face interaction and communication, in combination with the loss of eye contact and body language can lead to misunderstandings, making difficult the achievement of mutual trust and the development of good relationships among the team members (Weatherley, 2006).

Literature review identifies trust among project team members as another factor that may affect project performance. Wilson et al. 2006 characterize trust as a critical factor that influences team collaboration. The absence of trust among members may occur time waste, since more effort is expended by monitoring one another and backing up each other's work. Clelland and Zarankin 2012 notice that, due to group work interdependence, individual trust among members is the key element for an effective collaboration. An existing research by Sanchez-Burks et al. 2003 proves that culture differentiation, political system and history are

the main factors that influence collaboration development and Schneid et al. 2015 report that members' trust in multicultural teams is different from this in unicultural teams. Henttonen and Blomqvist 2005 support that face to face teams develop trust easily, due to social and emotional interaction, in contrast to virtual teams that exchange information through electronic communication. Moreover, multicultural virtual teams have lower level of social control, having as a result the non-associated behavior with individual trust (Wilson et al., 2006). Cheng et al. 2016 provides an important research about the individual trust among members of multicultural teams. It is noted that increase of individual trust, can improve collaboration effectiveness, project performance and, as a consequence, project result. The research, also, highlights that semi-virtual teams present higher level of individual trust than virtual teams, due to the combination of virtual and face to face interaction through the project, and lower level than typical teams with real interaction. However, the report's findings have the most severe impact for the topic that it is investigated, since it is concluded that trust level decreases over time for multicultural groups and increases only for unicultural teams. The combination of the above interprets that multicultural virtual project teams have the lowest trust level, in contrast to unicultural face to face teams that interpret the highest one. Luckmann and Farber 2016, also, present lack of trust as the major impact of multiculturalism on a project team, while Ochieng and Price 2010 state that trust is essential and mandatory for project success.

The analysis of the factors that affect project performance continues with cultural values and cultural dimensions as they are established by professor Geert Hofstede. Hofstede can be characterized as one of the most influential researchers of national culture. Between 1967 and 1973 he analyzed a large data set received from employees from all over the world and developed his first model consisted of four dimensions, describing the impacts of society's culture on its members' values. Hofstede 1980 reports cultural differences which are focused on work related values. In 1991, Hofstede et al. add a fifth dimension at the model, while in 2010, Hofstede et al., at the book with title "Cultures and Organizations: Software of the Mind", present the final Hofstede model, consisted of six dimensions. A briefly description of them is following (<http://www.geerthofstede.nl/>; <https://www.hofstede-insights.com/>):

- *Power Distance Index (PDI).*

It regards the way that a society faces inequalities among people and express the way that less powerful society's members accept and expect the unequally distribution of power. Some societies interpret a large degree of Power Distance, accepting a hierarchical model in which each person has a standard place. In low Power Distance societies an equalized power distribution is observed.

- *Individualism vs Collectivism*

It regards the relations among people. In the individualist societies, members have the only responsibility and control for their choices and decisions, while in the corresponding collectivists a preference for the society and a connection among individuals are observed and preferred.

- *Masculinity vs Femininity*

In masculine societies men are supposed to be tough, while both men and women present a strong willingness for achievement, heroism and material rewards. In contrast, feminine societies are dominated from cooperation, modesty and life quality. In the sector of business this dimension is related to tough and tender cultures.

- *Uncertainty Avoidance Index (UAI)*

It measures the degree that society's members feel uncertainty and ambiguity and has to do with anxiety facing the unknown. Members of a weak UAI society seem to feel more relaxed and secured.

- *Long vs Short Term Orientation*

It regards the maintenance of society's past, facing at the same time the present and future challenges. A low degree of this index or short-term societies indicate a preference to maintain traditions, while long-term societies seem to be more contemporary, adapting a modern way of thinking.

- *Indulgence vs Restraint*

It regards the way that a society allows the satisfaction of humans' needs and his freedom in terms of life enjoyment.

Many scientific researches, that deal with multicultural project teams and the virtual collaboration among people from different national cultural backgrounds, take into consideration the Hofstede model for their analysis (Cheng et al., 2016; Ess and Sudweeks, 2005; Han and Beyerlein, 2016; Luckmann and Farber, 2016; Ochieng and Price, 2010; Rees-Caldwell and Pinnington, 2013; Vlahov et al., 2016; Anbari et al., 2009)

Cheng et al. 2016 use the Hofstede model to investigate the individual trust at multicultural virtual collaboration, giving as an example the collectivist dimension of China and Russia, while the same model is used by Ess and Sudweeks 2016 at their research regarding culture and computer-mediated communication. Han and Beyerlein 2016 analyze the cultural dimensions to explain how multiculturalism affects virtual team processes. Zhang et al. 2014 refer that individualism and collectivism behavior influence the operation of a multicultural team, while Paul et al. 2004 add that high individualism creates conflicts at team management. Luckmann and Farber 2016 use power distance, individualism and uncertainty avoidance to examine the impact of cultural differences on a project. They note the high power distance of African and Asian team members, in contrast to low power distance of westerns countries. As regards individualism and collectivism, the research highlights the collectivistic culture of Indians who can, easily, leave important job tasks for personal or family reasons, in contrast to individualist Germans who, usually, set job as priority. For Asian cultures family and friends are the priority, while western people segment private and business life. In terms of uncertainty, Arabic countries and Germany are characterized from high uncertainty avoidance, trying to mitigate risk. The same three Hofstede's dimensions are used by Vlahov et al. 2016 to examine the cultural diversity influence on project management. The researchers, among other, highlight the cultural dimensions for Greece as a member of Eastern Europe, noting the high collectivism and power distance, followed by low uncertainty avoidance. Ochieng and Price 2010 identify development of collectivism, as it is established by Hofstede, as an urgent need for the effective management of a multicultural team, while Rees-Caldwell and Pinnington 2013 use power distance and uncertainty avoidance for the investigation of national culture differences in project teams, taking into consideration the Arabic and British cultures. Their study presents that the Arabic one appears both high power distance and uncertainty, in contrast to British which is characterized from low level of dimensions. Anbari et al. 2009 investigate project's cultural differences using dimensions

from Hofstede model along with other factors. It is important their statement that Greece appears high uncertainty avoidance, China scores one of the highest levels of long term orientation, while Germany presents a high masculinity index.

The aforementioned dimensions may cause insufficient communication and trust issues among team members, as has, already, been mentioned at the beginning of this part, along with fear of punishment or job loss and lack of equal individual participation at the whole project (Luckmann and Farber 2016). Moreover, the same research reveals the impact that all the above may have at project result, noticing some negative outcomes. Specifically, the main problem seems to be a possible project delay, since much time is needed for the misunderstanding avoidance and project's issue solution. Furthermore, unexpected costs due to the delay may increase the project budget, affecting, negatively, the project outcome and, in extreme cases, leading to project failure. Anbari et al. 2009, also, deal with project result and impact that multiculturalism has on it. Through their survey, they conclude that different cultural values and communication issues may influence project heavily, occurring even the project and organization bankrupt.

Huang 2016 investigates the challenge of multicultural project management. At his research the examples of China, Germany and the US are selected and compared, revealing the difficulties of collaboration during the project procedure and implementation. The researcher ends up with a valuable, in terms of this dissertation topic, feedback about the different work mentality of these three countries.

Chinese prefer to work in stages, keeping in mind from the beginning the final goal and start the project in small steps. At the end of each stage, they make a review and adapt the project plan. If a project goal change is necessary, they are willing to adjust the project procedure. Sometimes Chinese give the impressions that they are not concentrated or focused on the final goal. However, it happens because they cannot satisfy all the project stakeholders. The main advantage of Chinese work mentality is the very fast reaction time and that they can work all day and night if it is necessary. They are used to an authoritarian leadership, following the person-leader during the project procedure. Their disadvantage is that they work spontaneously, and they should be alerted and pushed to work quickly and effectively, since the followed process is unsteady and usually slow. Their work philosophy is "All is well that ends well".

Germans follow a different way of working. They prefer from the beginning to analyze an entire complex project, knowing all the necessary details. After the assignment of the project tasks, each participant knows exactly and clearly what he/she has to do and works autonomously, following the formal rules. It is difficult to change the project schedule or modify the plan and both are followed strictly. They are well known for the high quality of project result and they work rationally and directly to the point with a stable rhythm. German work philosophy is “Do the right thing from the start and it saves you trouble in the end”.

Americans seem to have a more complicated way of working, since they, initially, define the main project goal and, afterwards, they decide whether to separate it into different stages as Chinese, or face it as a complex entity as Germans. They react quickly in a potential enquiry and set as priority customer requirements and needs. However, they feel upset with uncontrolled project changes. Their advantage is the effective risk management and their work philosophy is “Nothing is ever perfect. If nobody loses, everybody wins.”

2.3 Theoretical Framework

Through the literature review, the author has identified the main factors that may influence the performance of a virtual/semi-virtual multicultural project team. Therefore, the research is focused on communication and trust issues among the project team members, including the correlation between the two factors, along with cultural diversities and different work mentality as they are described from the Hofstede model.

The below figure (Figure 1) provides a structure of the theory and the literature review regarding the topic. It is a guidance of the existing research’s theoretical part, determining the issues that will be investigated.

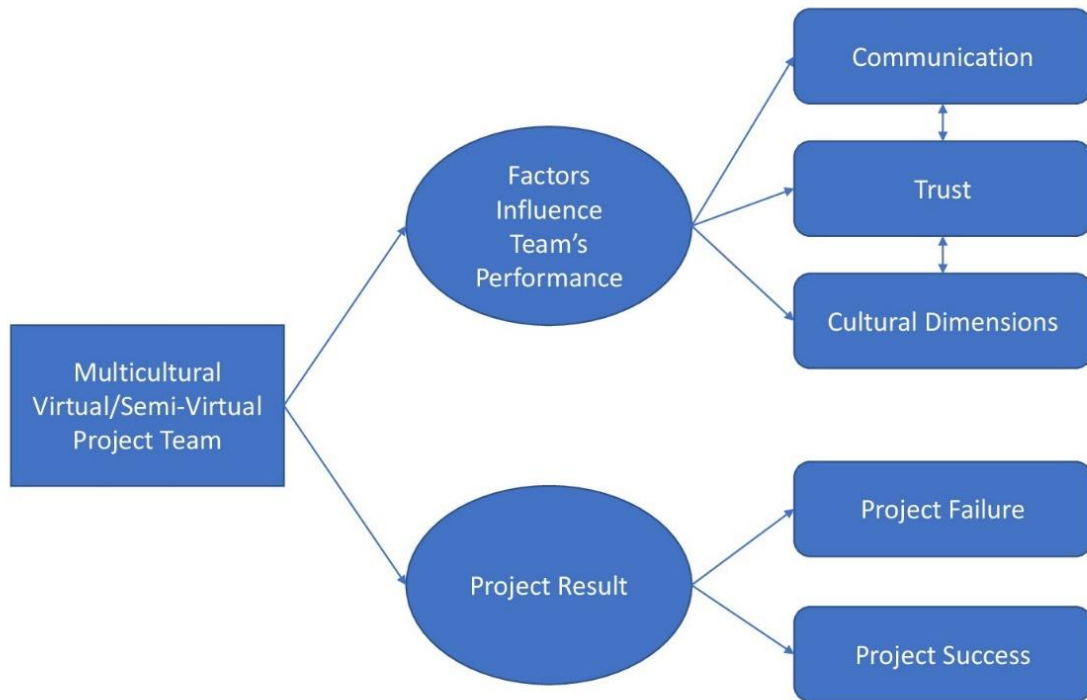


Figure 1: Theoretical Framework

3. Methodology

3.1 Research Method

For the examination of multiculturalism effect in a project team and the achievement of the aims that have been set at the beginning of this study, a structured research has been constructed.

In general, researchers have to select between two, widely, accepted and recognized methods, qualitative and quantitative. According to Blumberg et al. 2008, qualitative studies are based on collected information like words and narratives, while quantitative researches rely on numerical data sets. Therefore, the qualitative method converts a discussion or an observation into words, whereas the quantitative one is dealing with statistic procedures (Denscombe, 2003).

As a consequence, this study uses a qualitative complex research method to collect the necessary information for the topic investigation, combining two qualitative data collection tools. For this purpose, a structured questionnaire has been developed, including questions related to multicultural virtual/semi-virtual project management. However, it is not the only research method for data collection, and, for this reason, the author has not proceeded with the online questionnaire sent to the participants, but he has combined it with the method of face to face in-depth interviews. This research method is used as a complementary way to receive the relative feedback from the sample group, using the questionnaire as a guideline for the development of an effective bilateral discussion between the author-interviewer and the participant-interviewee. Through this process, not only is offered the opportunity to be captured descriptive data about the behavior of multicultural team members, but also the investigation of topics and points that are not involved in the questionnaire is provided. The questionnaire and the discussion are filled out and recorded by the interviewer, making the interviewee to feel comfortable to generate insightful responses regarding the topics. Moreover, the author, due to face to face communication, has the ability to capture the interviewee's expressiveness, offering the opportunity of deeper understanding through the monitoring of body language and changes at the tone of speech.

At the beginning of each interview-discussion, the author makes a brief introduction of the topic, analyzing the aims and the objectives of the study and provides some characteristic examples of national culture diversity, as they are mentioned in the literature review, Section 2. Moreover, each interviewee is informed about the Hofstede model and its six dimensions in order to think about its application at his/her cases.

3.2 Sample

In order to investigate the impact of multiculturalism on a project team, it is necessary to have feedback and information from a representative sample group. The first requirement for the sample selection is the participation, through a key role, in a cross cultural or multicultural team. Project or product managers and project engineers, coming from a variety of industries, are the main job positions that may provide the necessary data for the topic investigation. The second requirement regards the type of project team in terms of the way of communication and collaboration. This study is focused on virtual/semi-virtual collaboration, at which team members do not have daily face to face interaction. Therefore, it has been crucial for the research to find and select project leaders who have years of experience in management of this kind of project teams.

For the examination of multiculturalism as a key characteristic of a project team and the way that it may influence team's performance and operation, it is important to investigate cultural backgrounds from all over the world. At the literature review, Section 2, the different way of thinking and working distinctiveness among national cultures have been noted. Therefore, it is important to collect information from multiple cultures and nations. As a consequence, each participant-interviewee has been selected with the requirement that he/she leads project teams that members are coming from different national cultures in each case. In that way, the ability to collect data and examine the cultural behavior from many countries and different continents has been provided. Moreover, as it has, already, been mentioned in the introduction, Section 1, and is proved at the literature review, Section 2, there is a research gap regarding the examination of multicultural project teams in Greek territory and Greek organizations. As a result, participants with Greek nationality have been chosen.

The sample group consists of four (4) participants, coming from different organizations and industries. All of them have key roles at the organizations and at least three (3) years of experience in management of cross-cultural/multicultural virtual/semi-virtual project teams. In addition, they are handling project members from many nationalities from all over the world. Detailed information about each participant's profile are being provided below. Due to the General Data Protection Regulation (GDPR), neither personally identifiable information nor companies' names are mentioned in this research.

- Participant No 1

Female IT project manager, working for a multinational FMCG company headquartered in Germany. She has, in total, five (5) years of experience in multicultural project teams, and three (3) years now she is leading both virtual and semi-virtual IT project teams consisting of five (5) to seven (7) members. The participant has semi-virtual collaboration with the German team members, meeting them, almost, once per quarter and virtual collaboration with members from many European countries such as Italy, Poland, Slovenia, France, Great Britain, Sweden etc.

- Participant No 2

Male project manager responsible for the after sales department of a Greek company, which is dealing with the distribution of consumer electronics in Greece and Turkey. The participant has an experience of three (3) years at this job position and he leads a four (4) member cross-cultural team consisting of two (2) Greek and two (2) Turkish employees. Among the members there is a semi-virtual collaboration and a scheduled face to face meeting once per semester. However, emergency real meetings take place a few times during the semester.

- Participant No 3

Female construction project engineer with four (4) years of experience at construction projects in Qatar. Most of projects are a joint venture between a multinational European construction company and Qatari companies. The participant is member of a numerous semi-virtual multicultural project team, at which the European culture meets the Arabic one. There is real face to face interaction at the beginning of each project and frequently scheduled meetings regarding the project supervision in Qatar.

- Participant No 4

Male software developer who is working for a multinational organization at the telecommunications sector. The participant has an experience of five (5) years at this position and the last two (2) years he is a leader of a developer's team consisting of members located in the USA and Germany. Among the members there is only virtual collaboration and they never have face to face interaction.

- The role of the researcher as part of the sample

As it has, already, been mentioned in the introduction, Section 1, the author is part of this research as member of the sample group, due to his work experience with multicultural team. He is working as a product manager for consumer electronics and technology products, having two (2) years' experience of collaboration with Chinese companies. All the projects are a joint venture among a Greek company and Chinese manufacturers of electronic devices and software developers. Most of times, the collaboration is virtual without any real interaction, except from highly emergencies at which the product manager travels in China, having a real collaboration with the Chinese project members.

3.3 Content of Questions

At the Subsection 3.1, the qualitative complex research method, which is applied to this study, is stated and analyzed, mentioning the use of a structured questionnaire, as the main tool, in combination with in-depth interviews, as the complementary tool. The questionnaire operates as a guideline of the discussion between the author-interviewer and the participant-interviewee and it may be found in Appendix A.

It is segmented into three parts. Each part tries to investigate and report different staff regarding the participant and his/her experience with multiculturalism and national diversified project teams.

Part A starts by noting a few basic personal information, such as sex and nationality, while questions relative to participant's current employment situation are following. Job position, years of job experience and the industry that company or organization belongs to are important information that should be taken into consideration. This part continues by asking

the type of collaboration in terms of nationality and way of communication, since it may be either cross-cultural or multicultural, either virtual or semi-virtual. Moreover, participants have to note the national cultures which are mixed at the project team, the frequency of their meetings, in case of semi-virtual interaction, and the common language with which team members communicate. Part A ends with a question at which each participant evaluates himself/herself regarding his/her own experience with multicultural project teams.

Part B contains the main part for the development of a productive discussion and consists of questions which are focused, exclusively, on the study's aim and objectives. This part contains both open-ended questions, at which the interviewee express his/her thoughts, and some others that are responded through the Likert scale. The part starts by asking how easy the collaboration with cultural diversified members is and continues with the factors that are significant for the efficiency of a multicultural project team. Participants have to response using Likert scale whether trust, effective communication, cultural differences awareness, face to face interaction or anything else are important for team's operation. Afterwards, two opened questions about the key success factors and the major disadvantage at the management and operation of a multicultural team are following. The next question regards the main challenges that multicultural teams have to face and have been identified from the literature review. Using the Likert scale, participants are requested to provide their opinions about them or any other that they consider as important. Two questions regarding individually trust among team members are following, trying to investigate the existence of correlation with communication issues. Part B ends with an opened discussion regarding the impact of multiculturalism on project scope, time and budget.

At the beginning of last part, Part C, it is examined whether team members need a training or not about multiculturalism and national cultural differences for the effective team operation. Afterwards, participants are requested to rate, through Likert scale, the statement that each project manager needs a great cultural understanding in order to lead a multicultural team. Last but not least, the interview is completed with an opened discussion regarding the Hofstede model and its six dimensions. The author tries to analyze the model and provides examples taken from the literature review, helping the participant to bring to the surface cases of his/her own job experience that justify national cultural diversities and different work mentality among the project team members.

4. Content Analysis

This section, Section 4, begins with the recording and representation of the most important parts of the responses, (Subsection 4.1), that author has received from the participants during the process described at section 3. The extensive responses of each one may be found in Appendix B. Subsequently, the study continues with the interpretation of the findings, (Subsection 4.2), as they have been exported from the content analysis.

4.1 Responses

- Participant No 1

According to participant No 1, the collaboration with cultural diversified members is quite difficult and the fact of virtual/semi-virtual interaction makes it a little bit more difficult in comparison with face to face unicultural cooperation. Regarding the elements that make a team like this to operate efficiently, trust and communication are the most significant, since they have been rated with 5 at Likert scale. Effective communication has a crucial role at the data analysis and the project task assignment. Awareness of cultural differences scores 2 at the same scale, being of little importance, since it is good to know the cultural differences of your partners, but it is not the most important element for the efficiency of a multicultural team. Regarding the lack of face to face interaction, the IT project manager rates it with 2, since it is important only at the beginning of a project. At the questions about the key success factor and the main disadvantage of a multicultural virtual project team, participant No 1 responses with the same key element, mentioning individual trust and lack of trust among the members, respectively and adds that the level of trust is not the same between the homogenous and the cultural diversified team members. About the challenges of working in a multicultural virtual team, miscommunication/language issues and lack of trust have the highest scores, while the time zone difference and cultural diversity score the lowest, since the members are located, mainly, in Germany and some other developed European countries. In addition, an existence of correlation between the communication and trust is noted, since the more communication issues, the less trust among members. For this reason, the key members at the company should be able to communicate both in German and English. Regarding the impact that all the above may have on the project, participant No 1 states a

negative influence both at project's scope and time. Sometimes, the misunderstandings and communication issues may delay the project and they can lead to the change of the delivered project result.

As regards the different work mentality among national cultures, participant No 1 notes that Italian and Polish members are very well organized at their tasks, making her to trust them more than the rest, while French and Great British present an arrogant character that is not occurred and excused by their job positions. In addition, German members many times care about their own benefit, working for the individual growth, a fact that interprets the individualistic character of their society. They, also, like to analyze all the project details from the beginning, they are very focused on deadlines and they do not like to make any change during the project. Another issue, that may influence the cooperation, is the fact that Germans leave their jobs at 12pm every day for an hour due to lunch break, creating troubles at the cooperation with other countries.

- Participant No 2

From the beginning of the interview, participant No 2 has remarked that miscommunication and language issues are the main problems that a multicultural virtual/semi-virtual project team has to face. Turkish members cannot speak English in an effective level, creating misunderstandings and leading to waste of time. For that reason, the after sales project manager rates effective communication as the most significant element and the key factor for the efficient operation of this kind of team, while trust and cultural differences awareness come second with 4 at Likert scale. Moreover, he notes that miscommunication has a negative impact on trust, making him trust the Turkish members less than the Greeks. Regarding cultural diversity, the participant mentions that it may arise some extra issues when the European culture meets the Turkish one, which is a traditional Islam culture. A cultural element that may arise collaboration issues, is the fact that Muslims have to pray at specific times during the day, meaning that they should leave any project task or meeting. However, the other members should show respect at this cultural diversity. Consequently, linguistic problems, lack of trust and cultural differences are the main challenges of working in a multicultural team, according to participant No 2. The abovementioned issues influence negatively the project, since the miscommunication leads to waste of time and project delay,

while, in some cases, to the whole project failure and, as a result, the waste of money. The participant agrees that a project manager needs a great cultural understanding for the effective management of a multicultural team and believes that at the beginning of a project, all the team members it is good to be informed about the cultural differences that some colleagues may have.

As regards the differences at work mentality, Turkish project members present high power distance, since they, always, use the term “Sir” when they talk to the leader and show respect to hierarchy. Furthermore, the participant notes that they like work for the team’s growth, showing the collectivistic character of their society and they need laws and rules, an element that indicates high uncertainty avoidance.

- Participant No 3

According to this participant, the collaboration among cross cultural diversified members is, usually, good. However, sometimes she characterizes it as not so easy, especially, in the begging of a collaboration, until to know the way of thinking and cultural differences of the rest members. The female construction project engineer notices the development of good relation among members and the understanding of cultural needs as the key factor for management of a multicultural team and rates trust and cultural awareness with the highest level at Likert scale at the question regarding the elements that makes a multicultural team effective. In the contrary, she believes that face to face interaction is important and mandatory only at the beginning of the project and not at the whole process, rating it with 2. Regarding communication, she notes an average level of significance, since she communicates decent in English with the Qatari project members. However, she remarks that the knowledge of national language has a profit not only at communication, but also at individual trust, since it provides the ability to learn the Arabic culture. For that reason, participant No 3 says that effective communication, using Qatari language, is positively corelated with trust. According to her responses, lack of individual trust and cultural differences are the main team’s challenges, while the fact of different national holidays, due to different religion, is the main disadvantage, occurring, sometimes, project delay and delivery time extension. Moreover, lack of trust is translated into more travels between Europe and Qatar for project supervision, more working hours and as a result budget increase.

In addition, the participant, strongly, agrees that a project manager needs to have good cultural understanding, especially, when it has to do with Arabic countries and that team members should know and be informed from the beginning about the different way of thinking between the two cultures.

Regarding the work mentality of Qatari, female participant identifies that it is more difficult for a woman to, equally, compete the rest managers in Arabic countries, something that remarks the masculinity of the society. As many Islamic countries, Qatari team members want to work with rules because of high uncertainty avoidance, and present high power distance, complying with the hierarchy and following the manager's decisions strictly.

- Participant No 4

According to this participant, cultural diversity does not create any crucial problem at collaboration among cultural diversified software developers, rating it as easy at Likert scale. However, he notes that it may influence the trust among team members and adds that miscommunication issues are collated with trust, but it is not a rule. Therefore, both trust and effective communication have been rated with 4 about the factors that make a team efficient, while cultural differences awareness and face to face interaction take the lowest score. Individual trust and excellent linguistic skills are noticed as the key success factors, while as the main disadvantage it is remarked the time difference between Europe and the United States of America. The different time zone may influence the interaction, since a member have to wait up to six hours in order to communicate with the other side. Consequently, time difference and miscommunication are the main challenges that a virtual multicultural team has to face. The participant notes that, sometimes, the limited English skills of Germans may create misunderstandings with the native Americans. As regards the impact that all the above have on project, the response is focused on project schedule, mentioning that time difference and different working hours can delay some project tasks or the whole project delivery.

The software developer adds that Americans have some differences at work mentality in comparison with Europeans. They are friendly enough at the collaboration and daily interaction, independent of job position and hierarchy, presenting the low power distance of their society. However, they are very competitive and seems to work for their individual benefit, an element that shows their individualistic character.

- The response of the researcher

The author of this research, as part of the sample group and having experience of virtual collaboration with Chinese companies, believes that multicultural collaboration is difficult, especially, when two or more quite different national cultures are mixing for the constitution of a project team. Regarding the factors that make a team to operate efficiently, effective communication has the highest grade at Likert scale, since it's the most significant element for project implementation. Immediately correlated with communication is trust among the teammates, graded with 4 at the same scale, since the more effective communication is, the higher the level of individual trust. Moreover, cultural differences awareness is quite important, since it makes to understand the different way of thinking and working of rest members, due to their different origin. In contrast, lack of face to face interaction seems to be not so important as the previous elements, having an average grade. Therefore, after two years of virtual interaction with Chinese culture and a monthly stay in China, working nearby the Chinese members, miscommunication issues can be characterized as the main weakness and disadvantage of working with cultural diversified members. Most of communication difficulties come from the limited linguistic ability of Chinese, since only a small percentage of them are talking decent English in business level. However, Chinese national culture, also, occurs some communication problems. For example, totally different sense of humor may create misunderstandings, having a negative impact on day to day collaboration. Furthermore, another very important challenge of multicultural virtual collaboration is the different time zones between European countries and China. Six hour difference means that the start of a working day in Europe is close to the end of the day in China. The problem is becoming huger at the cooperation between the USA and Asia, where the time difference may be up to twelve hours. The above issues have as a result a negative influence at project outcome. Miscommunication and misunderstandings may delay the project delivery, while, sometimes, they can affect the whole project scope. Moreover, travels among Europe and Asia cost a lot, increasing the budget. As a result, it is quite good for each project leader to know the cultural distinctiveness of team members, while all of them can take advantage through a training at the beginning of each project.

Chinese employees have quite different work mentality from western partners. They can work until late night if it is needed, communicating and supporting the team members from

the other side, while leisure time is not so important, an element that presents the masculinity of the Chinese society. Moreover, team profit, successful project result and company's benefit are the priority against the individual growth, characterizing them as a highly collectivistic culture. However, their main disadvantage is that they seem to work efficiently only under pressure, needing to be pushed in order to understand the significance of a project task. As regards the way that they face any project, Chinese like to work step by step, setting milestones very often, while they like receive feedback after any proposal or recommendation. They do not have problem with changes during the project, as long as they have guidance and leading. It is a high power distance culture, since they accept inequalities among members of a team, showing huge respect to teammates and supervisors.

4.2 Findings

After the exposition of participants' and author's responses, the study continues with their analysis in order to end up with valuable conclusions. The author has identified common elements at the feedback, that he has received from the interviewees and has proceeded with detailed content analysis. The study's findings, regarding the impact of multiculturalism on virtual/semi-virtual project teams, are mentioning below:

- Finding 1

Effective communication and individual trust are the main factors that a multicultural team needs to operate efficiently. Between them, positive correlation is existed.

Through the qualitative data analysis, it occurs that effective communication and trust among project team members are the most significant elements regarding the efficient team operation. Both of them are needed at all project stages, from the beginning, when the task and role assignment take place, until the project development and delivery day. In addition, it seems that individual trust is positively correlated with effective communication, since the good communication among the members is translated in increased level of trust. From participants responses it, also, arises that these two factors are the key success elements that project managers have to take into account for the successful management of a multicultural team.

- Finding 2

Cultural differences may influence team's operation, especially, whether different religions are contained and mixed among members' cultural background.

According to feedback received from sample group, cultural differences may have impact on project operation. In some cases, when the European or other western cultures are mixing for the constitution of a project team, cultural discrepancies are not so important and can be confronted. However, the existence of members which are coming from quite different cultures may have a significant effect at team management and project development. The research participants that collaborate with Islamic members have mentioned that different religion and quite different way of thinking can have as a result misunderstandings and low level of trust among members. Moreover, different religion means that project members have different national days off, creating issues at project plan.

- Finding 3

Face to face interaction is significant at the beginning of each project, but not enough at the whole project implementation process.

As it occurs from the responses, lack of face to face interaction among the project members is not a significant issue. However, some of the participants have stated that real collaboration is crucial at the beginning of the project, making much easier and more efficient the project analysis and the assignment of tasks.

- Finding 4

Miscommunication and lack of trust are the most common issues that a multicultural virtual/semi virtual team has to face.

This finding is related with Finding 1. Linguistic problems and lack of individual trust have been characterized as the main challenges for a multicultural team. Miscommunication and misunderstandings can, easily, occur whether some of members cannot communicate at the same level with others. This fact can decrease the level of trust, influencing the project operation. Moreover, most of the participants have stated that they trust the cultural diversified members less than the homogenous partners.

- Finding 5

Time zone difference may occur communication issues, only if project members are located in very remoted places.

According to the responses, the different time zone is not a problem and it cannot be considered as a major issue at multicultural virtual collaboration. However, the participants, who cooperate with members with 5 or more hour difference, have noted that it may create some miscommunication issues, since the working hours are not the same.

- Finding 6

Multiculturalism may, indirectly, influence project scheduled time plan, by delaying the project lead-time.

Regarding the impact of multiculturalism on project outcome, a significant negative affect at project time has been detected. Almost all of the participants, including the author, have stated that all the abovementioned problems and challenges have as a result the waste of time for unexpected reasons, since much time is needed for misunderstanding avoidance and project's issue solution. In this case, project delay and budget increase, due to the extra working hours, may arise. In extreme cases, project failure has been mentioned.

- Finding 7

Each culture has its own work mentality. The more differences among cultures, the more significant the impact of multiculturalism on project outcome.

Each participant has added something different at the research regarding the work mentality of cultural diversified members. As a result, it is concluded that each national culture has a specific way of thinking, which is reflected at work and it may create issues among the members. The participants who collaborate with European colleagues have noticed that it is not a major problem. However, these who interact with quite different cultures, as the Arabic one and the author who deals with the Chinese culture, have stated that it may occur significant issues at operation of a multicultural project team.

5. Conclusion

This study has explored the way that multiculturalism influences the management and operation of a virtual/semi-virtual project team. Taking into consideration the literature review and the existing researches regarding the topic (Sections 2), an investigation, based on Greek project leaders, has been conducted. Using the methods of questionnaire and in-depth interviews (Section 3), a qualitative data set has been received, and through the content analysis some valuable findings have been presented (Section 4). This last main section interprets the association between the findings and previous studies, as they are mentioned in the literature review, provides some recommendations regarding these research findings and proposes topics for future research.

5.1 Discussion with Previous & Similar Studies

This study has found that effective communication and individual trust are the most significant factors for the efficient operation of a multicultural project team, while their absence is characterized as the most crucial challenge that members have to face. As regards communication, the result complies with Ochieng and Price (2010), who consider communication as the key element for the fulfillment of project expectations and believe that through this factor strong working relations may be developed. Moreover, miscommunication issues due to limited linguistic abilities are, highly, mentioned in the literature review (Vignovic and Thompson, 2010; Saidun 2016; Luckmann and Farber 2016). In addition, Wilson et al. 2006, Clelland and Zarankin 2012, and Cheng et al. 2016 highlight the importance of members' trust for project implementation, noting that group work independence requires high level of trust for effective collaboration, while low level affects the cooperation negatively. One more important issue that is presented both at the research findings and the literature review is this regarding the different trust between multicultural and unicultural teams. This research agrees with Schneid et al. 2015, providing the result that trust among team members with the same cultural background is much higher than this among the cultural diversified.

Regarding the impact of multiculturalism on project outcome, project delay and project plan extension is the common element among this and previous researches. Luckmann and Farber

2016 and Anbari et al. 2009 mention that in multicultural project team much time is needed for the misunderstanding avoidance and project's issues solution, while in extreme cases the project is leading to scope changes or failure. Last but not least, this study complies with the literature review in terms of different work mentality among cultural diversified project partners. Author's description about collaboration with Chinese members have many common elements with Huang 2016, who investigates the challenge of multicultural project management. In addition, participants' responses interpret some social characteristics that are provided and explained by Hofstede model and its six dimensions. In general, the common qualitative result is that each national culture has its own work mentality and it may influence the performance of a team when members come from different cultures. However, the negative effect is more significant, when huge cultural differences, including religion, history and political system are existed (Cheng et al. (2016); Sanchez-Burks et al. 2003).

5.2 Recommendations & Managerial Implications

After the identification and the analysis of issues and challenges that a multicultural virtual project team has to face and their impact on project outcome, this study provides some recommendations. Most of them occur from the content analysis and the received feedback from research sample group. According to the qualitative data set, project manager who are responsible for team's performance and operation may have good understanding of national culture differences. Project leader has to apply a special way for each member handling, in order to gain the maximum income from each one for the project implementation and success and at the same time to avoid any misunderstanding among the members. Furthermore, at beginning of each project, it is important for the project team to have face to face interaction for the role assignment and project scope description. At this stage, it would be significant for all the members to have a training regarding the different national cultural that are mixed.

5.3 Limitations of the Study

Any kind of scientific study have some limitations, that may have critical impact on research result. Regarding this study, the author had to face the difficulty of finding many Greek participants-interviewees with years of experience at multicultural virtual/semi-virtual

project management. For that reason, the sample group consists of four (4) members, adding the author's feedback. Moreover, none of the participants was informed about the Hofstede model and its six dimensions before the interview, making very difficult its detailed description and explanation by the author.

5.4 Future Research

This topic may be, extensively, explored for more valuable and significant results. For example, it would be important the analysis of data received from specific industries, like technology, construction, IT, wholesale etc., in order to examine the impact of multiculturalism on them separately, and if they have to face the same challenges or not. Moreover, as future research may be investigated the positive influence of multiculturalism on project performance and operation, since it is sure that national culture diversities among team members do not have only negative effect. Each culture and its way of thinking and work mentality has something different, in terms on knowledge, to add at project process and implementation.

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Appendix

Appendix A

Questionnaire

Part A

- Gender:
- Job title:
- Industry:
- Years at company:
- Cross-cultural or multicultural teams? Which nationalities?
- Years at this kind of team:
- Real, virtual, semi-virtual or joint venture? If semi-virtual, how often do the team members have face to face collaboration?
- Which is the language which is used among members?
- How would you evaluate your level of cross-cultural/multicultural experience?
 - a) Not experienced
 - b) Slightly experienced
 - c) Experienced

Part B

- How would you evaluate in terms of difficulty the virtual/semi-virtual collaboration with cultural diversified members?
 1. Very easy
 2. Easy
 3. Average
 4. Difficult
 5. Very difficult
- What do you think that multicultural teams need to be efficient? Please, evaluate below factors, using the following Likert scale.
 1. Not significant
 2. Of little significance
 3. Of average significance
 4. Significant
 5. Very significant
 - a) Trust:
 - b) Effective communication:
 - c) Cultural differences awareness:
 - d) Face to face interaction:

e) Other:

- Which are the key success factors at the management of a virtual/semi-virtual multicultural team?
- Which is the major disadvantage of working in a virtual/semi-virtual multicultural team? Why?
- Which are the challenges of working in a virtual/semi-virtual multicultural team?

Please, evaluate a-f, using the below Likert scale.

1. Not significant 2. Of little significance 3. Of average significance
4. Significant 5. Very significant

a) Miscommunication/language issues:

b) Lack of individual trust:

c) Cultural differences:

d) Time zone difference:

e) Virtual collaboration:

f) Other:

- How much influence do you think that communication issues have on trust among members?
- Do you trust members coming from different culture at the same level as those from the same one?
- What is the impact of multiculturalism on project's outcome? How does it affect project scope, time and budget?

Part C

- How would you rate the statement that a project manager needs a great cultural understanding to lead a multicultural team effectively?
1. Strongly disagree 2. Disagree 3. Average 4. Agree 5. Strongly agree
- Do you believe that project team members should have any kind training regarding multiculturalism?
- Discussion about Hofstede's dimensions and work mentality regarding specific national cultures.

Appendix B

Responses

Participant No1

Part A

- Gender: **Female**
- Job title: **IT Project Manager**
- Industry: **FMCG Retail**
- Years at company: **5**
- Cross-cultural or multicultural teams? Which nationalities?
Multicultural teams consist of German, French, Slovenian, Swedish, British, Italian, Polish and other European employees.
- Years at this kind of team: **5**
- Real, virtual, semi-virtual or join venture? If semi-virtual, how often do the team members have face to face collaboration?
Semi-virtual collaboration with German partners, meeting them once per quarter, and virtual interaction with the rest members.
- Which is the language which is used among members? **German and English**
- How would you evaluate your level of cross-cultural/multicultural experience?
 - a) Not experienced
 - b) Slightly experienced
 - c) **Experienced**

Part B

- How would you evaluate in terms of difficulty the virtual/semi-virtual collaboration with cultural diversified members?
 1. Very easy
 2. Easy
 3. Average
 - 4. Difficult**
 5. Very difficult

“It is quite difficult and it becomes more difficult because you do not have face to face interaction with the other side. This fact has impact on communication”
- What do you think that multicultural teams need to be efficient? Please, evaluate below factors, using the following Likert scale.
 1. Not significant
 2. Of little significance
 3. Of average significance

4. Significant 5. Very significant

- a) Trust: **5**
- b) Effective communication: **5**
- c) Cultural differences awareness: **2**
- d) Face to face interaction: **2**

- Which are the key success factors at the management of a virtual/semi-virtual multicultural team?

“The most important factor is by far trust among members. If you do not trust your partners, many issues and troubles may arise. However, at a multicultural team trust level is not high and of course lower than unicultural.”

- Which is the major disadvantage of working in a virtual/semi-virtual multicultural team? Why?

“Lack of trust among the members. It is not only the fact that you have different culture. If you do not have real interaction and face to face collaboration, it is more difficult.”

- Which are the challenges of working in a virtual/semi-virtual multicultural team? Please, evaluate a-f, using the below Likert scale.

1. Not significant 2. Of little significance 3. Of average significance
4. Significant 5. Very significant

- a) Miscommunication/language issues: **4**
- b) Lack of individual trust: **4**
- c) Cultural differences: **2**
- d) Time zone difference: **1**
- e) Virtual collaboration: **3**

- How much influence do you think that communication issues have on trust among members?

“The more the communication issues, the less the trust with the person you have problems. For this reason, company prefers to hire managers who can speak both German and English. Sometimes I ask from other members to send me screenshots of code in order to understand what they have done or what they say. I cannot trust them the same level as someone who speaks Greek.”

- Do you trust members coming from different culture at the same level as those from the same one?

“Just no.”

- What is the impact of multiculturalism on project’s outcome? How does it affect project scope, time and budget?

“The most common result it to delay the project delivery. Almost every time that we have cooperation with foreign members, something will be happened, and we will deliver it later than the expected. Of course, this fact has as a result to work more hours and in some cases to change even the project scope.”

Part C

- How would you rate the statement that a project manager needs a great cultural understanding to lead a multicultural team effectively?

1. Strongly disagree 2. Disagree **3. Average** 4. Agree 5. Strongly agree

- Do you believe that project team members should have any kind training regarding multiculturalism?

“it is not so important when collaboration is among Europeans who do not have many cultural differences. However, it provides only positive impact, so why not?”

- Discussion about Hofstede’s dimensions and work mentality regarding specific national cultures.

“... [Italian and Polish are very well organized in total and they like to have scheduled program during the project process. This fact makes me to trust them more] ... [British and French have arrogant behavior and is something that it is mentioned by many the Greeks in the office] ... [Germans seem to work for their own benefit and sometimes they care more for themselves and not for the team. However, they are very good at their work and they are focused on any task they lead. They, always, want to meet the deadlines and for this reason they do not like to make changes during the project] ... [German have break for lunch every day at 12pm for an hour and they may leave the office. This fact can occur troubles if we want some urgent info or anything else.] ...”

Participant No2

Part A

- Gender: **Male**
- Job title: **After Sales Project Manager**
- Industry: **Consumer Electronics Distribution**
- Years at company: **3**
- Cross-cultural or multicultural teams? Which nationalities?
Cross-cultural team consists of two Greek and two Turkish members.
- Years at this kind of team: **3**
- Real, virtual, semi-virtual or joint venture? If semi-virtual, how often do the team members have face to face collaboration?
Semi-virtual collaboration, face to face meetings once per semester.
- Which is the language which is used among members? **English**
- How would you evaluate your level of cross-cultural/multicultural experience?
 - a) Not experienced
 - b) Slightly experienced**
 - c) Experienced

Part B

- How would you evaluate in terms of difficulty the virtual/semi-virtual collaboration with cultural diversified members?
 1. Very easy
 2. Easy
 3. Average
 - 4. Difficult**
 5. Very difficult**“Miscommunication and limited English language skills of Turkish members make the collaboration difficult.”**
- What do you think that multicultural teams need to be efficient? Please, evaluate below factors, using the following Likert scale.
 1. Not significant
 2. Of little significance
 3. Of average significance
 4. Significant
 5. Very significant
 - a) Trust: **5**
 - b) Effective communication: **4**
 - c) Cultural differences awareness: **4**

d) Face to face interaction: **2**

- Which are the key success factors at the management of a virtual/semi-virtual multicultural team?

“By far effective communication.”

- Which is the major disadvantage of working in a virtual/semi-virtual multicultural team? Why?

“The fact that sometimes some of the members do not speak English in business level creating misunderstandings. Moreover, different culture by itself may create some issues. For example Turkish members have to pray many times during the day and they are obliged to leave any task or meeting for this reason. It is not something that you cannot find in Greece or any other European country. I show respect to this cultural difference and we continue our job and interaction later.”

- Which are the challenges of working in a virtual/semi-virtual multicultural team? Please, evaluate a-f, using the below Likert scale.

1. Not significant 2. Of little significance 3. Of average significance
4. Significant 5. Very significant

a) Miscommunication/language issues: **5**

b) Lack of individual trust: **5**

c) Cultural differences: **4**

d) Time zone difference: **1**

e) Virtual collaboration: **2**

- How much influence do you think that communication issues have on trust among members?

“Miscommunication has negative result at collaboration and makes me to trust the Turkish members less than the Greeks.”

- Do you trust members coming from different culture at the same level as those from the same one?

“Unfortunately, not.”

- What is the impact of multiculturalism on project's outcome? How does it affect project scope, time and budget?

“Mainly waste of time because of miscommunication and misunderstandings. It means that the project will delay. In some cases, we could not deliver the project because of these reasons and we lost the money.”

Part C

- How would you rate the statement that a project manager needs a great cultural understanding to lead a multicultural team effectively?
1. Strongly disagree 2. Disagree 3. Average **4. Agree** 5. Strongly agree
- Do you believe that project team members should have any kind training regarding multiculturalism?
“It is a good idea that can help collaboration.”
- Discussion about Hofstede’s dimensions and work mentality regarding specific national cultures.
“... [Turkish members always call me “Sir” and they like work for the teams’ growth] ... [they want to follow rules and regulations and show high respect to laws] ... “

Participant No3

Part A

- Gender: **Female**
- Job title: **Project Engineer**
- Industry: **Construction**
- Years at company: **4**
- Cross-cultural or multicultural teams? Which nationalities?
Multicultural team consists of Europeans and Qatari members
- Years at this kind of team: **4**
- Real, virtual, semi-virtual or join venture? If semi-virtual, how often do the team members have face to face collaboration?
Join venture, face to face interaction at the beginning of each project and virtual collaboration afterwards.
- Which is the language which is used among members? **English**
- How would you evaluate your level of cross-cultural/multicultural experience?
a) Not experienced

b) Slightly experienced

c) Experienced

Part B

- How would you evaluate in terms of difficulty the virtual/semi-virtual collaboration with cultural diversified members?

1. Very easy 2. Easy **3. Average** 4. Difficult 5. Very difficult

“In general, the collaboration is good, but sometimes it is not so easy, especially at the beginning until to know the way of thinking of rest members.”

- What do you think that multicultural teams need to be efficient? Please, evaluate below factors, using the following Likert scale.

1. Not significant 2. Of little significance 3. Of average significance

4. Significant 5. Very significant

a) Trust: **3**

b) Effective communication: **5**

c) Cultural differences awareness: **5**

d) Face to face interaction: **2**

“Face to face interaction is very important and mandatory at the beginning and not at all stages. Regarding communication, I communicate very good in English with the Qatari project members, but if you speak their language is a huge advantage not only at communication, but also at trust because you can understand their culture better.”

- Which are the key success factors at the management of a virtual/semi-virtual multicultural team?

“The most important is to have good relations with the rest members. In order to do it, you have to understand their culture and the way of thinking.”

- Which is the major disadvantage of working in a virtual/semi-virtual multicultural team? Why?

“Qatari culture means different religion with European members. So, they have different national holidays and sometimes it creates problems at the project schedule.”

- Which are the challenges of working in a virtual/semi-virtual multicultural team?
Please, evaluate a-f, using the below Likert scale.

1. Not significant 2. Of little significance 3. Of average significance
4. Significant 5. Very significant

- a) Miscommunication/language issues: **3**
 - b) Lack of individual trust: **5**
 - c) Cultural differences: **5**
 - d) Time zone difference: **1**
 - e) Virtual collaboration: **2**
- How much influence do you think that communication issues have on trust among members?
“If you speak Qatari, everything is easier because they feel you closer to them.”
 - Do you trust members coming from different culture at the same level as those from the same one?
“I don’t think so.”
 - What is the impact of multiculturalism on project’s outcome? How does it affect project scope, time and budget?
“All these problems have negative impact. The most common is extension of delivery time. Moreover, if you do not trust them a lot, it means that you should travel in Qatar to inspect the project. As a result, both the working hours and the budget increase.”

Part C

- How would you rate the statement that a project manager needs a great cultural understanding to lead a multicultural team effectively?
1. Strongly disagree 2. Disagree 3. Average 4. Agree **5. Strongly agree**
- Do you believe that project team members should have any kind training regarding multiculturalism?
“When the cultures are quite different, as Qatari one, yes. It is very good to have training about it.”
- Discussion about Hofstede’s dimensions and work mentality regarding specific national cultures.

“... [for a woman is more difficult to compete the rest project managers] ... [Qatari members want to follow rules and regulations and show high respect to supervisors] ...”

Participant No4

Part A

- Gender: **Male**
- Job title: **Software Developer**
- Industry: **Telecommunication**
- Years at company: **5**
- Cross-cultural or multicultural teams? Which nationalities?
Multicultural team consists of American and German members
- Years at this kind of team: **2**
- Real, virtual, semi-virtual or join venture? If semi-virtual, how often do the team members have face to face collaboration?
Only virtual collaboration
- Which is the language which is used among members? **English**
- How would you evaluate your level of cross-cultural/multicultural experience?
 - a) Not experienced
 - b) Slightly experienced
 - c) **Experienced**

Part B

- How would you evaluate in terms of difficulty the virtual/semi-virtual collaboration with cultural diversified members?
 1. Very easy
 - 2. Easy**
 3. Average
 4. Difficult
 5. Very difficult

“I think that multiculturalism does not generate any problem.”
- What do you think that multicultural teams need to be efficient? Please, evaluate below factors, using the following Likert scale.
 1. Not significant
 2. Of little significance
 3. Of average significance
 4. Significant
 5. Very significant

- a) Trust: **4**
 - b) Effective communication: **4**
 - c) Cultural differences awareness: **2**
 - d) Face to face interaction: **1**
- Which are the key success factors at the management of a virtual/semi-virtual multicultural team?
“Trust among members and the ability to speak English at the same level. For example, German cannot speak as native Americans and sometimes it creates misunderstandings.”
 - Which is the major disadvantage of working in a virtual/semi-virtual multicultural team? Why?
“By far the main disadvantage is the time difference between USA and Europe. When we want feedback from the American partners, we have to wait up to six hours until to get the response.”
 - Which are the challenges of working in a virtual/semi-virtual multicultural team?
Please, evaluate a-f, using the below Likert scale.
 - 1. Not significant 2. Of little significance 3. Of average significance
 - 4. Significant 5. Very significant
 - a) Miscommunication/language issues: **4**
 - b) Lack of individual trust: **4**
 - c) Cultural differences: **2**
 - d) Time zone difference: **4**
 - e) Virtual collaboration: **1**
 - How much influence do you think that communication issues have on trust among members?
“They are correlated, and miscommunication may create trust issues, but it is not a rule.”
 - Do you trust members coming from different culture at the same level as those from the same one?
“I think yes.”

- What is the impact of multiculturalism on project's outcome? How does it affect project scope, time and budget?

"Due to the time difference, many times we delay the project delivery."

Part C

- How would you rate the statement that a project manager needs a great cultural understanding to lead a multicultural team effectively?

1. Strongly disagree 2. Disagree **3. Average** 4. Agree 5. Strongly agree

- Do you believe that project team members should have any kind training regarding multiculturalism?

"I don't think so."

- Discussion about Hofstede's dimensions and work mentality regarding specific national cultures.

"... [Americans are very friendly partners and independent of job position and hierarchy, they want to be approachable by anyone. However, they are very competitive and sometimes they prefer working for their own benefit and not so much for team's growth] ..."